

WE CLAIM:

1. A device for connecting optical fibers for the purpose of transmission of an optical signal comprising a ferrule, said ferrule comprising a longitudinal extending body, said body having a middle section and a first connection clamp and a second connection clamp
5 with a conic end at each of its free ends, said connection clamps are located on either side of said middle portion, said body also having a bore that traverses its central axis through said connection clamps and said middle portion, and said bore having a diameter that is slightly smaller than the diameter of the optical fibers to be connected, said middle portion having a first end and a second end body with conic sections with opposite angles at its
10 first end and the second end, said connection clamps also having one or more longitudinal slots that cut the ferrule along the orthogonal axis, traversing radially outward in opposite direction and extending the length of the ferrule from one side to the other side, a first plug and a second plug and having a wire center that is inserted into the conic ends located at the free ends of the first connection clamp and the second connection clamp and extend
15 until the center of the middle portion of the ferrule.
2. A tool comprising two interior grips that engage with the complementary sections of the conic sections on the middle portion of the ferrule of claim 1 and two exterior grips that engage with the ferrule at the conic ends located at the free end of the connecting clamps.
3. The use of the device of claim 1, for connection optical fibers comprising:
20 (a) engaging the two interior grips on the tool of claim 2 with the complementary conic sections located at the ends of the middle portion of the ferrule to cause expansion of the length of the middle portion of the ferrule causing the slots and the diameter of the bore to expand;
(b) engaging the two exterior grips of the tool with the conic ends on the
25 connection clamps which applies a compression force between the exterior grips and the connection clamps to increase the diameter of the bore;

- (c) removing the first plug from first connection clamp and inserting a first optical fiber into the bore until it is abutted against the second plug connected to the second connection clamp and the first external grip is relaxed so that the connection clamp closes on the fiber and maintains it in place; and
- 5 (d) removing the second plug from the second connection clamp and inserting a second optical fiber into the bore and which is abutted against the first optical fiber and maintains it in place and the second external grip is relaxed so that the connection clamp closes on the fiber and maintains it in place.
- 10 (e) release of the center, causing diameter and length decrease, whereby sufficient force is applied by the device to center the fibers and abut the fiber end faces for light signal transmission.
4. The use of claim 3 wherein the tool may be used to remove the fibers for reuse of the connecting device for optical connection of optical fibers.